1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

312 flooding in very wet years, when the water of the lake, un-
134 able to escape through the very narrow passage of the Dragon's Tail Pass, overflows on to the flat western shore. Unless the flood becomes so deep as to cover the ears of rice, this does no harm, and such exceptional depths are rare. Yet on account of these two risks the land nearest the lake shore, in appearance the best on the plain, is in fact of less value than fields nearer the mountain slopes.

134 Unlike almost all other parts of Yunnan the soil of the Ta Li plain is not the red clay associated with the prevailing Yunnan limestone rocks, but a heavy black soil due to the fact that Ts'ang Shan is an upthrust of granite breaking
133 through the limestone cap of the Yunnan plateau. This geological peculiarity has one serious disadvantage, the frequency of severe earthquakes on the Ta Li plain. Slight shocks are common in the dry season, especially after one of the winter spells of drizzle, but a major earthquake in the spring of 1925 not only destroyed most of the city of Ta Li but caused much greater havoc and a very heavy loss of life in the lakeside villages, where a wave from the lake did further damage. Local records mention other severe earthquakes in previous centuries, but for many years before 1925 no serious shock had occurred, nor has there been a major earthquake since that date.

311 Apart from a narrow belt of willow groves along the lake shore, where flooding is usual, the entire surface of the plain is under cultivation. The villages as far as possible are built on the shore itself, or on the lowest slopes of the mountain, to free as much land as possible for the cultiva-
[491] tion of rice. Even the main caravan road, a stone-paved path about six feet wide, skirts the slopes of the mountain, and the paths leading to villages and fields are narrow and follow the dykes along irrigation channels. Very little land is devoted to market gardening, usually only such patches by

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

CHAPTER 10

ON THE ROAD

491 "GOOD for ten years, bad for ten thousand"—the old
489 Chinese proverb aptly characterises the stone-paved caravan paths which are the only roads of Yunnan. To modern ideas there are no real roads in Yunnan at all, except the motor road to Burma built in the past two years. That, indeed, is the only road on which wheeled vehicles can pass. But, as the English word "road" implies, a road was once a track primarily for riding, not for vehicles. Goods passed on pack animals not in carts, and this ancient manner of travel is still the daily practice of Yunnan. Once it is recognised that travel means walking or riding at a foot's pace, and that roads are any track along which a pack pony can pick its way, then all journeys are long and slow, but no place is really inaccessible.

438 Consequently, the people of Yunnan, the Min Chia and
484 their neighbours, do intercommunicate, although to the stranger the country appears to be almost impassable. It is really the indomitable Chinese trader who has opened up these difficult and precarious communications, for the indigenous population left to themselves would probably have remained isolated. The Chinese merchant and, to a lesser extent, the Chinese government, built the bridges without which the rivers, too deep to ford, and too swift to ferry, would have been impassable. They built them with the labour of the native population to serve the needs of the ruling race, as is commonly the case in all colonial development. Trade is still in the hands of the immigrant Chinese merchants, and though the personnel of the official class is drawn from all the civilised races of Yunnan its spirit and

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

since the fall of the exchange made goods bought in Burma too dear for the Yunnan market. Another long regular route is the tea road from Pu Erh in south Yunnan, about twenty days' journey south of Ta Li, to A Tun Tze on the border of Tibet in north Yunnan, which is eighteen stages from Ta Li. At this point the tea is handed over to Tibetan caravans which take it on to Lhasa and other points in Tibet. This road passes through Hsia Kuan and Ta Li, and the section from Hsia Kuan to Wei Hsi, half-way to A Tun Tze, is usually worked by men from the Ta Li plain.

These routes are called roads, because that is the usual translation of the Chinese word "*lu*," but it would be more accurate to call them tracks or paths. At one time, probably after the Ming conquest of Yunnan, these routes were paved with blocks of stone or cobbles, the paved track being about five feet wide with a smooth line of dressed stones down the middle. Except in a few places nearest to towns this paving has either completely disappeared, or become so disjointed and broken up as to be nearly impassable. The animals naturally dislike walking on broken slippery stones set at all angles in the mud, and where possible they have trodden out a new track on one side. This practice is resented by the owners of the fields adjoining the path, and they plant strong hedges of wild roses or prickly pear to confine the mules to the old broken track. If a man rides a horse on such a path the animal, trying to avoid the broken stones and mud holes, keeps to the outside edge and carries the rider under the long trailing shoots of the rose bushes, which soon tear his clothes to ribbons. The muleteers, of course, never ride their beasts.

Such stretches of broken track between the rose and cactus hedges only account for a small part of the day's stage. With very few exceptions every stage on any road in Yunnan involves climbing a range of mountains in the

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

491 morning and descending to another valley in the afternoon. This is because the roads going from east to west have to
491 cross an endless series of steep ranges which run from north
133 to south. It might be hoped that if one travelled northwards or southwards one would therefore be able to follow the valleys, but this is rarely the case. The river valleys of Yunnan are for the most part gorges so narrow as to be impracticable, only opening out into a lake plateau at wide intervals. Consequently, if one travels from north to south it is not possible to follow the valley down stream, because it soon becomes a gorge. The road therefore climbs up to the crest of the range, follows along it until the next lake plateau is reached, and then descends again.

491 Consequently the average stage of about twenty miles
137 falls into four well-marked divisions. Firstly, two or three miles across the flat lake plateau between the rose hedges and rice fields until the second stage, the ascent, is reached. This is usually long and steep, a twisting track, once stone steps, now broken into a slide of rubble, rocks, and—after rain—slippery stretches of red mud. On both sides of the track the uncultivated slopes of the mountains are covered with scrub of azaleas, winter green, wild tea, and other flowering shrubs, shaded by a sparse forest of pine trees. As the road winds higher this forest gets taller and denser until, about the 10,000 ft. level, which on most roads is the crest, the pines give place to chestnuts and very tall well-grown non-deciduous trees of the ilex type, called Ch'un, beneath which there is a dense growth of rhododendron and bamboo. The tops of the mountains are often flat, with open grassy glades and running cold streams among the forest, and such a place is chosen for the midday halt, where the horses can graze.

491 The descent in the afternoon is made through similar forest, although sometimes the east side of a mountain will

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

be much dryer and less wooded than the western face, 491
where the monsoon rains strike. The path, which is difficult enough for the animals on the climb, becomes much worse on the descent. Only a Yunnan-bred mule or pony would face a descent of broken stone steps, steep, set at all angles, often slippery with wet mud from some oozing stream, and the animal fully laden with loads weighing up to two hundred pounds. Yet they very rarely fall, picking their way from stone to stone, jumping a mud hole, or wading gingerly through the discoloured waters of a stream. This descent may take from two to three hours, about seven or eight miles, and leads to the last section of the stage, the final two or three miles across the cultivated valley to the small town or village which is the stage point.

Sometimes, even on the main routes, as for instance on 491
the road to Bhamo four days west of Hsia Kuan, there is 485
a long stretch of uninhabited mountain country with no cultivated valleys or villages. Here, after toiling all day up and down wooded ranges the caravans must rest for the night at some tiny collection of huts on the mountain side. Even on the most frequented roads it is rare to see any habitations after the valley is left behind, except perhaps at the midday halting place where there are a few teahouses and food stalls. Distances are long, roads execrable, the country deserted (and formerly full of robbers), the inns, when the day is done, dirty and dilapidated. The scenery and the climate are superb, but the inhabitants, accustomed to them from childhood, see no pleasure in travelling.

Distances in China are measured by the *li*, which is 804
approximately one-third of the English mile. As is often the 491
case with peasants in mountain lands, the measure is a variable unit depending on the nature of the road. Thus, in flat country, a *li* is really about one-third of a mile. Ta Li

1: Fitzgerald H-5 (1937-1939) AE3 Sino-Tibetan
Border Peoples AE3

to Hsia Kuan is always said to be thirty *li*, along the plain, and is ten miles in fact. When a muleteer says that the day's stage is seventy *li*, which includes crossing a range, the real distance is not twenty-three miles or so, but more nearly nineteen or twenty. This is the average length of a stage, but often it is called eighty *li*, which means a full twenty miles or more, and the longest stage on the K'un Ming-Bhamo road, from Sha Ch'iao to P'u P'eng, midway between Ta Li and K'un Ming, is said to be one hundred *li*, and is in fact a full thirty miles. Muleteers always know the length of the stage, but they usually have no idea of the distance between intermediate points. If, after travelling for about half the day, one asks a muleteer how far it is to the stage point, he may reply forty *li*, or ten *li*, or fifteen, apparently unable to calculate broken distances.

Stage points are either small cities or villages, which in wild country may be only a few houses. The administrative walled cities, *hsien*, are often not situated on the main roads, or do not form stage points if they are, but only midday halts. This may be because the muleteers prefer to avoid the seats of authority. The administrative cities are generally up to three days' journey apart, and the intermediate stage points are villages, some of which are only collections of inns living entirely on the transit trade. Inns are of two kinds, "horse inns" and "guest inns". The "horse inn" is what in western Asia is called a caravanserai, a large courtyard surrounded on three sides by stables, and a big room on the fourth side for the muleteers, with a loft for hay and fodder overhead. These inns are frequented only by the regular transport caravans, and can stable about a hundred horses a night. Guest inns are also built round courtyards, and often have two, the one at the back surrounded by stables for the riding and baggage horses of

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

travellers, while the front courtyard gives access to the rooms where the guests sleep. These are small and simply furnished with trestle and plank beds covered with a straw mat, for the traveller carries his own bedding. Sometimes they may have a table and a chair or two for meals, but usually there is only one table, on the courtyard verandah, where the guests dine. Most inns are dirty, unswept and tumbledown places, "battered caravanserais," which in summer are verminous, and in winter cold and draughty. On the other hand they are cheap. If there is a restaurant attached, as is often the case, the traveller will pay under one local dollar for food and lodging, and the meals are good and plentiful. If the value of the Yunnan new dollar is taken as eightpence, before the war with Japan, the traveller need not pay more than sixpence for two good meals and his room.

Almost all inns provide rice cooked in the inn kitchen, but in small places the traveller must buy and cook his own meat and vegetables. Inns also provide rice wine, and there is generally a teahouse nearby. In towns like Hsia Kuan, where the long-distance caravans change horses, there are immense inns with a series of courtyards running back from the street, able to stable two hundred horses if necessary, and these inns let out their rooms to business houses as offices. On the same roads in small places in the mountains there may be only one inn, almost a farmhouse, with two or three rooms at most, and there the horses have to be picketed in the courtyard while the late arrivals have to doss down wherever they can find room. Accommodation is thus always poor and often very bad, but food is always good and frequently excellent. In small towns a restaurant, simply a long dark room with a cooking stove and four or five tables, provides the most tasty and delicious meals for very low prices, and the small wayside places at the midday halting

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

491 points serve excellent well-cooked food. The Yunnanese
485 have no idea of comfort, yet are born cooks.

Regular transport muleteers are necessarily hard tough
492 men inured to all weathers, and independent in character. They live a life on the roads, doing a thirteen-days' stage and then back again month after month, with usually only one day's rest at the terminal points. It is sometimes customary for travellers to rest one day in seven or eight, but the regular transport caravans always make their full thirteen or fourteen days' stage without halts. Caravans number up to forty or fifty mules with one man to every three animals, the leading mules being particularly fine strong animals carrying a bell and a plumed headdress of woollen pompoms by which they can be heard and seen at a distance. These animals know every inch of the road and find their own way, the muleteers often walking well behind the caravan, for as long as the mules can hear the leader's bell they will follow without being urged. Some of the muleteers carry arms, either a pistol, an old rifle, or swords, and even in those parts of the country where "small bandits", that is to say individual footpads, still exist, such caravans are never molested, since the muleteers are both more courageous and better armed than the robbers.

492 The routine of travel followed by the caravan men is
484 curious, and to the ordinary traveller not very convenient. The men get up in the middle of the night, about two in the morning, and cook themselves a large meal of rice and vegetables, and then, when that is eaten, go to sleep again for another three hours. At six they rise, saddle the mules and start out at once without taking anything to eat. After about four hours on the road, round ten o'clock, they halt at some place where there is plenty of grass, a stream of water, and some shade trees—and in Yunnan such places are

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

482 so. The man at the back cannot see the road ahead, and the one in front therefore directs him when the road is rough or when an obstacle is encountered. These directions are given in set formulae framed in rhyming slang, and the rear porter replies in the same manner to show that he has heard and understood. These phrases cannot be literally translated without losing their character, but English equivalents would be, *e.g.*, if the road is wet ahead, the leader says " Slippery place", and the one behind replies " Mend your pace " (*hua te hen—ch'ai te wen*).

Porters and litter bearers are always Ssu Ch'uanese, and usually ragged wretches drawn from the poorest class who have taken to the roads to earn a hard living. Most of them are opium smokers, but though this probably shortens their lives, they do not seem to be any the worse for it when on the road. They spend their entire lives travelling to and fro over these mountain roads, and though unable to read and quite unfamiliar with maps, many porters know every road in south-west China, and can repeat the names of the stage points from Bhamo to Ch'ung King, more than a thousand [733 461] miles. They never seem to save enough money to retire, for their wages go on opium to ease the pain in their aching shoulders after twenty miles of rough road. The muleteers, whc are men of substance, owning their animals and often some land as well, despise these human beasts of burden, who are also strangers from another province.

484 491 Neither muleteers, porters, nor travellers have any real protection against bad weather. In the winter months, when most travelling is done, rain is rare and light, but on the high ground it turns to sleet or snow, and conditions can be very bad in such weather. The mud road becomes a slippery slide on which neither man nor beast can keep a sure footing, and the broken stone paving is, if anything, worse

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

going. The men wear straw sandals which grip well on dry ground or rock, and can be replaced in any village when worn out, but in wet weather they soon disintegrate, and the men finish the day barefoot splashing through the deep red mud. The wide straw hats with an oil cloth cover, which porters and muleteers wear, keep off most of the rain, but a felt blanket thrown over the shoulders is the only protection against the cold. They arrive soaked through at the inn, where they can perhaps dry their clothes and warm themselves at the cooking fire. Travellers, if in a *hua kan*, can get some protection from the hood, but this is inadequate in heavy rain, and the unprotected legs and feet are in any case soaked and frozen.

In summer, the rainy season, the roads are nearly impassable. The stone paving is usually lost to sight beneath muddy puddles of unknown depth, and the unpaved tracks on the mountain are deep in sticky mud. Streams overflow making wide stretches of water across the roads, or flow strongly down the road itself, the mountains are buried in thick mists making the way difficult to find, and the tracks, when passing above a gorge or ravine, are often carried away by a landslide. In such cases no one ever repairs the damage unless the route is the only possible one, the usual practice being to make a detour through the scrub above the washed out section. In this way the roads gradually depart further and further from the old line, until long stretches of paved path are abandoned, and slowly disappear under the brushwood.

It is indeed difficult to see why anyone ever took the trouble to make these paved paths, since they very soon fall into disrepair, and even when in good condition are most unsuitable for pack animals. The mules always avoid a stone path if they can find a strip of earth alongside, or can make a detour through the scrub. In north China, where cart and

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

491 horse traffic is the ordinary way of travel, there are no paved roads, and in south China where horses are unknown, all traffic on these paved paths is by porter. It is only in Yunnan that pack horse and porter traffic are found in competition. As the paved roads are in fact a hindrance to horses rather than a help, one may surmise that at the time they were first built, in the Ming dynasty, the country was governed by officials from south China, who knew nothing about horse traffic and built the roads primarily for moving troops. The so-called Yunnan pony, a smaller animal even than the Mongolian pony used in north China, is really bred in Tibet and the border country where paved roads have never existed.

The character of the ancient bridges built by the Chinese authorities across the rivers of Yunnan also suggests that formerly horse traffic was less important. Many of these are humped stone bridges which pack animals have great difficulty in crossing without slipping on the steep smooth stones. In fact, if the stream is shallow, the muleteers always make the animals ford the river, and the animals themselves will often try to ford a deep stream to avoid crossing the bridge. The great rivers such as the Mekong and Salween are crossed by iron chain suspension bridges, some of which date from Ming times. These bridges are made of planks laid across heavy iron chains which are anchored in the rocks at either end. Since these chains are far too heavy to have been carried any distance they must have been forged on the spot with iron brought by mule pack.

At the present time these mediaeval methods of travelling are still unchallenged except by the new motor road from K'un Ming to Burma, which was opened for traffic in the late autumn of 1938. This immense undertaking was built by forced labour as a war measure, in two sections. The first section of 277 miles from K'un Ming to Hsia Kuan,

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

near Ta Li, was finished in the spring of 1938, some parts of it having been in partial use for two years before that date. It crosses five major passes and winds for long distances on the crests of the mountains, in a region absolutely uninhabited. The second section, from Hsia Kuan to the Burmese frontier at Nam Kan is slightly longer, about 290 miles, and passes through much more difficult country. The mountains on this section are both higher and steeper, and the two great rivers, the Mekong and Salween, had to be bridged anew, as the old mule bridges were not strong enough for wheeled traffic. Work was started in December, 1937, and the first through traffic passed over the road from Burma in December, 1938, an achievement which is barely credible to anyone familiar with the country. This section was also built by forced labour, the inhabitants of districts up to one hundred miles from the road being brought to work on it, where they camped in shelters made of boughs and turf. It is probable that not far short of one hundred thousand men and women were employed in this year building the road.

It does not seem likely that the existence of the motor road will, at least for many years, destroy the old caravan trade. The silk road finds an outlet at Bhamo, which is the most convenient port on the Irrawaddy, and therefore does not follow the line of the motor road for the last one hundred and fifty miles. The tea road from south Yunnan to Tibet is also unaffected by the motor road which crosses it at right angles at Hsia Kuan. Moreover, it is likely to be much cheaper to send goods by mule than by motor car ; the opening of the Hsia Kuan—K'un Ming section of the Burma road did not affect the transit of goods from K'un Ming by mule at all. Individual travellers, on the other hand, naturally preferred to travel by bus when possible, and do thirteen stages in three days. The passenger service, how-

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

491 ever, remains irregular and slow. Days pass when there are
494 no buses running, and when they do run they are often delayed by breakdowns or by subsidence of the new-made road.

491 The construction of motor roads does not therefore have at first any profound effect on the lives of the Yunnanese country folk. Indeed, their only direct concern with these roads is in the building of them, which they have to do by forced labour. This duty is the more unwelcome as they themselves cannot use the road when it is finished. Mules are not allowed on the motor roads, because the passage of large caravans of mules not only destroys the surface of the road when it is newly laid, but also interferes with motor traffic. The Yunnanese mule or pack pony has naturally never seen a motor car, or even a wheeled cart, and in consequence they stampede in wild alarm as soon as one appears. The proportion of muleteers to animals is small, for the caravans on the old pack roads need very little control, and therefore when a caravan of fifty or more mules stampedes at the sound of an approaching car, the ten or twelve men in charge cannot quiet them, loads are thrown off, and the frightened animals career wildly down the road communicating their panic to any other beasts they meet.

The muleteers therefore would not use the motor roads, even if they were allowed to do so, and the existing transport system derives no benefit from the construction of these roads. Nor do the other wayfarers, *hua kan* bearers and porters make much use of the new route. A motor road in mountainous country has to wind about by long detours to climb the ranges, and it is in practice quicker for those on foot to cut across the hills by the old paths which are so much shorter, if also steeper. Porters and litter bearers, as has been mentioned above, like to stop for a rest and a drink

1: Fitzgerald H-5 (1937-1938) AE3 Sino-Tibetan
Border Peoples AE3

of tea every few miles, and these teahouse resting places 491
are all on the old tracks, since the motor road winding about the hillsides passes through uninhabited forest country for many miles on end. The same difficulty occurs in regard to sleeping accommodation, for the foot passenger can at most do twenty-five miles in a day, and in some parts the motor road, making a long detour, does not touch any village for more than forty miles. For these reasons the foot passenger traffic can make no use of the new road either.

Where a public bus service exists it is only a small 494
number of wealthy people who can afford to use it. The fare to Hsia Kuan from K'un Ming was at first seventeen New Yunnan dollars, and then was raised to twenty-one. No poor man could afford this fare for a single journey, low though it is by European standards. A poor man, even a young student going up to K'un Ming to the Middle School, would find it much cheaper to walk the distance in thirteen days than to ride in the bus for three. By walking he would only have the small charges for food and lodging to pay, for he would take his scanty luggage on his back. The large numbers of men who go down to Burma for work in the winter months also always travel on foot, carrying their baggage on baskets and poles. For the poor man in Yunnan, Shanks' pony is and will long remain the only conveyance.

Unlike any other province in China, except neighbouring 505
Kwei Chou, Yunnan has no water communications of any importance. There are no navigable rivers in the province. Although it is crossed by four of the greatest rivers, the Yang Tze, West River, Mekong and Salween, not one of them can be navigated in Yunnan. Yet in spite of the isolation and distance from other navigable water, there is an active boat traffic on the great Yunnan Lakes, and on the most isolated of all, the Erh Hai at Ta Li, the boats are the biggest and best made of any in Yunnan. The Erh Hai

3 Torrance E-4 (no date)1933 AE3 Sino-Tibetan Border Peoples AE3

361

A Ch'iang village.

491

A road in the Ch'iang country.

[FACING p. 34]

5:Graham E-5 (1933, 1941)1942 AE3 Sino-Tibetan
Border Peoples AE3
Ch'iang

III. Economic Life.

1. Communications, Roads, and Bridges.

Among the Ch'iang there are no telephones, radios, or telegraph lines. There are no newspapers, and no books excepting those written by the Chinese and possessed by the few who can read them. Chinese-built roads connect the cities and towns in the valleys. Even here no wheeled vehicles can be used—only "hwagers" and sedan chairs, riding horses, and pack animals. On the Chinese roads some carry loads on the ends of bien dan or poles, but many carry their loads on their backs. Between the Ch'iang homes and villages the roads are unpaved footpaths, very narrow and often very steep. Frequently they go over or along the sides of steep precipices. It is not strange that the Ch'iang generally walk and always carry their loads on their backs. News is passed along by word of mouth, and naturally it is sometimes inaccurate.

The bridges resemble those of the Chinese and of their various neighbors in this region. A small creek may be waded, or crossed by stepping on large stones. Some bridges are merely logs or boards laid across the streams. One type of bridge is the false or corbelled arch. From both sides large timbers reach out one beyond the other, until they meet above the middle of the stream. A bridge often consists of a single bamboo cable. Two hollow wooden half-cylinders are tied securely around the cable. The person or baggage is tied to this, and when released slides half way across. Then the person pulls himself hand over hand the rest of the way, or the baggage is pulled to the opposite shore by means of a small rope. The larger rope bridges have nine or ten bamboo cables underfoot on which boards are laid, and four or more cables on each side. The longest bridges have several wooden trestles, the bridge sagging down between. As one walks over, the whole bridge shakes.

The rivers are too rapid for boats, which between Mou Chow and Yin Shiu Wan 秀湾 and between Wei Chow and Tsagulow are not even used as ferries.

2. Money, Marketing, Bartering, and Borrowing.

Chinese money is the currency of the Ch'iang. Until the latter part of the Manchu dynasty it was silver ingots or lump silver, then it was silver dollars. Now it is Chinese bank bills.

There is some buying and selling in the small villages. This is